

Customer No. **22,852**
Attorney Docket No. **09707.0001**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Kazuo UMEZAWA et al.**)
)
Application No.: **10/519,162**)
) Group Art Unit: Not Yet
Filed: **December 23, 2004**) Assigned
)
National Stage of International Application No.) Examiner: Not Yet Assigned
PCT/JP2003/008134 under 35 U.S.C. 371)
)
For: **DRUG COMPOSITION CONTAINING NF-**)
κB INHIBITOR)

MAIL STOP PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§1.56 and 1.97(b), Applicants bring to the Examiner's attention the documents listed on attached Form PTO/SB/08. With the exception of the U.S. patents, a copy of each listed document is attached. Applicants respectfully request that the Examiner consider the documents listed on attached Form PTO/SB/08 and indicate that they were considered by making an appropriate notation on this form.

To the undersigned's knowledge, this Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits for the above-referenced application.

The following are listed on the accompanying PTO/SB/08 and are in a non-English language:

1. Japanese patent publication no. 63-178101. An English-language abstract of the document is enclosed.
2. Japanese patent publication no. 6-211902. An English-language translation of the document is enclosed.
3. Japanese patent publication no. 2001-296288. An English-language translation of the document is enclosed.
4. Japanese patent publication no. 2001-352986. An English-language translation of the document is enclosed.
5. Japanese patent publication no. 2002-128690. An English-language translation of the document is enclosed.
6. KOBAYASHI M., "Expression Regulation of TNF α in Adipocytes and Significance of Insulin Resistance", Igaku no ayumi, 184(6), pp. 562-66, (1998). An English-language translation of the document is enclosed.
7. KURU et al., "TNF Expression in Muscular Disorder", Neuroimmunology 10, pp. 174-75 (2002). An English-language translation of the document is enclosed.
8. NAKAMURA et al., "Inhibitory Effect of New NF- κ B Inhibitor DHME2Q for Human Breast Cancer Cells", Proceedings of the Japanese Cancer Association, 61st Annual Meeting, Abstract 3550, p. 157 (2002). An English-language translation of the document is enclosed.
9. ARIGA et al., Seikagaku, Journal of Japanese Biochemical Society, 73(8) Abstract (2001). An English-language translation of the document is enclosed.

10. UMEZAWA K., "New Molecular Targets of Antidiabetic Agents and Anticancer Agents and Inhibitors", The 2nd Annual Report of the Center for the Development of Molecular Target Drugs, Symposium on Molecular Target Drugs in Kanazawa, Abstract (2002). An English-language translation of the document is enclosed.
11. UMEZAWA K., "Role of Signal Transduction Inhibitors of Low Molecular Weight in Regenerative and Genetic Medicine", The 7th Annual Scientific Meeting of Conference of Gene Therapy and Molecular Medicine, Abstract (2003). An English-language translation of the document is enclosed.
12. ARIGA et al., "Synthesis of Novel Epoxydone Compound DHM2EQ and Its Suppression of NF- κ B Action", The 4th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2000). An English-language translation of the document is enclosed.
13. SHIMA et al., "Inhibition of NF- κ B Inhibitor DHMEQ of Adhesion Molecule Expression in vascular Cells", The 6th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2002). An English-language translation of the document is enclosed.
14. WATANABE et al., "Basic Studies of the Molecular Target Therapy of ATL Using Novel NF- κ B Inhibitor", The 6th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2002). An English-language translation of the document is enclosed.

15. TAKAHASHI et al., "NF-kB Inhibition in Prostate Cancer Cells and Anti-Cancer Activity by DHMEQ", The 7th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2003). An English-language translation of the document is enclosed.

16. WATANABE et al., "Basic Studies of the Molecular Target Therapy of ATL Using Novel NF- κ B Inhibitor", The 7th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract S3-4 (2003). An English-language translation of the document is enclosed.

17. TATETSU et al., "In Vivo and in Vitro Studies of Novel NF-kB Inhibitor (DHMEQ) in Myeloma Cells", The 28th Annual Meeting of Japan Myeloma Study Group, Abstract (2003). An English-language translation of the document is enclosed.

18. ARIGA et al., "Inhibition of NF-kB by a Novel Epoxydone Compound", The 59th Annual Meeting, Abstract (2000). An English-language translation of the document is enclosed.

19. KIKUCHI et al., "Apoptosis-Induction in Hormone-Refractory Prostate Cancer Using a Novel NF-kB Activation Inhibitor", Proceedings of the Japanese Cancer Association, The 60th Annual Meeting, Abstract (2001). An English-language translation of the document is enclosed.

20. SHIMA et al., "Inhibition of Adhesion Molecule Expression by a NF-kB Inhibitor DHMEQ in Vascular Endothelial Cells", Proceedings of the Japanese Cancer

Association, The 61th Annual Meeting, Abstract (2002). An English-language translation of the document is enclosed.

21. NAMEKAWA et al., "Inhibition of NF-kB Activity in Bladder Carcinoma Cells", Proceedings of the Japanese Cancer Association," The 61th Annual Meeting, Abstract (2002). An English-language translation of the document is enclosed.

22. WATANABE et al., "Basic Studies of the Molecular Target Therapy of ATL Using a Novel NF-kB Inhibitor", Proceedings of the Japanese Cancer Association, The 61th Annual Meeting, Abstract, p 162 (3486), (2002). An English-language translation of the document is enclosed.

23. MATSUMOTO et al., "NF-kB Inhibitor Enhances the Anti-Cancer Effect of TNF- α Treatment and Ionizing Radiation in P.53 Wild Pancreatic Cancer", Proceedings of the Japanese Cancer Association, The 62nd Annual Meeting, Abstract, p. 160 (2073-OA), (2003). An English-language translation of the document is enclosed.

24. HORIE et al., Basic Studies of the Molecular Target Therapy of ATL Using a Novel NF-kB Inhibitor", Proceedings of the Japanese Cancer Association, The 62nd Annual Meeting, Abstract, p. 153 (2039-OA), (2003). An English-language translation of the document is enclosed.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicants determine

that the cited documents do not constitute "prior art" under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.


Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: March 1, 2006

By: David W. Hill
David W. Hill
Reg. No. 28,220

IDS Form PTO/SB/08: Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>			Complete if Known		
			Application Number	10/519,162	
			Filing Date	December 23, 2004	
			First Named Inventor	Kazuo UMEZAWA	
			Art Unit	Not Yet Assigned	
			Examiner Name	Not Yet Assigned	
Sheet	1	of	3	Attorney Docket Number	09707.0001

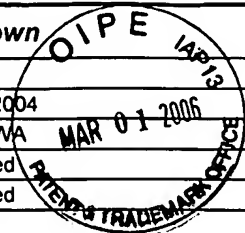


U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS					
Examiner Initials	Cite No. ¹	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		4,861,872	08-29-1989	Okamoto et al.	
		4,912,205	03-27-1990	Okamoto et al.	

Note: Copies of the U.S. Patent Documents are not Required in IDS filed after October 21, 2004

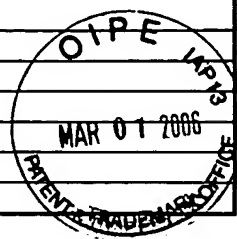
FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
		WO 00/02548	01-20-2000	Osteoscreen		
		JP63-178101	07-22-1988	Daicel Chem Ind. Ltd.		abstract
		JP6-211902	08-02-1994	Daicel Chem Ind. Ltd.		yes
		JP2001-296288	10-26-2001	Daicel Chem Ind. Ltd.		yes
		JP2001-352986	12-25-2001	Kyowa Hakko Kogyo Co. Ltd		yes
		JP2002-128690	05-09-2002	Hirohata Tashinari		yes

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶
		KOBAYASHI M., "Expression Regulation of TNF α in Adipocytes and Significance of Insulin Resistance", Igaku no ayumi, 184(6), pp. 562-66, (1998).	yes
		SCHDEL et al., "Synthesis of (R)-4,4,4-trifluoro-2-mercaptobutyric acid", Tetrahedron: Asymmetry, 11, pp. 2125-317, (2000).	
		KURU et al., "TNF Expression in Muscular Disorder", Neuroimmunology 10, pp. 174-75 (2002).	yes
		NAKAMURA et al., "Inhibitory Effect of New NF- κ B Inhibitor DHME2Q for Human Breast Cancer Cells", Proceedings of the Japanese Cancer Association, 61 st Annual Meeting, Abstract 3550, p. 157 (2002).	yes
		HORIGUCHI et al., "Antitumor Effect of a Novel Nuclear Factor- κ B Activation Inhibitor in Bladder cancer Cells, Expert Rev. Anticancer Ther. 3, pp. 793-8 (2003).	
		CHAICHARONPONG et al., "Preparation of Radioactively Labeled Dehydroxymethylepoxyquinomicin, an NF- κ B Function Inhibitor", Drugs Exptl. Clin. Res. XXIX, pp. 1-3 (2003).	
		MIYAJIMA et al., "Novel Nuclear Factor κ B Activation Inhibitor Prevents Inflammatory Injury in Unilateral Ureteral Obstruction", J. Urology 169, pp. 1559-63 (2003).	
		LIN et al., "(-)-Epigallocatechin-3-gallate Blocks the Induction of Nitric Oxide Synthase by Down-Regulating Lipopolysaccharide-Induced Activity of Transcription Factor Nuclear Factor- κ B", Molecular Pharmacology 52, pp. 465-72 (1997).	

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			Art Unit	Not Yet Assigned	
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Sheet	2	of	3	Attorney Docket Number	09707.0001

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶	
		OHLSSON et al., "Oxidized Low Density Lipoprotein Inhibits Lipopolysaccharide-induced Binding of Nuclear Factor- κ B to DNA and the Subsequent Expression of Tumor Necrosis Factor- α and Interleukin-1 β in Macrophages, J. Clin. Invest. 98, pp. 78-89 (1996).		
		ELIGINI et al., "Oxidized Phospholipids Inhibit Cyclooxygenase-2 in Human Macrophages Via Nuclear Factor- κ B/I κ B and ERK-2-dependent Mechanisms", Cardiovascular Res. 55, pp. 406-15 (2002).		
		ARIGA et al., Seikagaku, Journal of Japanese Biochemical Society, 73(8) Abstract (2001).	yes	
		UMEZAWA K., "New Molecular Targets of Antidiabetic Agents and Anticancer Agents and Inhibitors", The 2 nd Annual Report of the Center for the Development of Molecular Target Drugs, Symposium on Molecular Target Drugs in Kanazawa, Abstract (2002).	yes	
		UMEZAWA K., "Role of Signal Transduction Inhibitors of Low Molecular Weight in Regenerative and Genetic Medicine", The 7 th Annual Scientific Meeting of Conference of Gene Therapy and Molecular Medicine, Abstract (2003).	yes	
		ARIGA et al., "Synthesis of Novel Epoxydone Compound DHM2EQ and Its Suppression of NF- κ B Action", The 4 th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2000).	yes	
		SHIMA et al., "Inhibition of NF- κ B Inhibitor DHMEQ of Adhesion Molecule Expression in vascular Cells", The 6 th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2002).	yes	
		WATANABE et al., "Basic Studies of the Molecular Target Therapy of ATL Using Novel NF- κ B Inhibitor", The 6 th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2002).	yes	
		TAKAHASHI et al., "NF- κ B Inhibition in Prostate Cancer Cells and Anti-Cancer Activity by DHMEQ", The 7 th Annual Meeting of the Japanese Association for Molecular Target Therapy of Cancer, Abstract (2003).	yes	
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		ARIGA et al., "Inhibition of NF- κ B by a Novel Epoxydone Compound", The 59 th Annual Meeting, Abstract (2000).	yes	
		KIKUCHI et al., "Apoptosis-Induction in Hormone-Refractory Prostate Cancer Using a Novel NF- κ B Activation Inhibitor", Proceedings of the Japanese Cancer Association, The 60 th Annual Meeting, Abstract (2001).	yes	
		SHIMA et al., "Inhibition of Adhesion Molecule Expression by a NF- κ B Inhibitor DHMEQ in Vascular Endothelial Cells", Proceedings of the Japanese Cancer Association, The 61th Annual Meeting, Abstract (2002).	yes	
		NAMEKAWA et al., "Inhibition of NF- κ B Activity in Bladder Carcinoma Cells", Proceedings of the Japanese Cancer Association, The 61th Annual Meeting, Abstract (2002).	yes	
		WATANABE et al., "Basic Studies of the Molecular Target Therapy of ATL Using a Novel NF- κ B Inhibitor", Proceedings of the Japanese Cancer Association, The 61th Annual Meeting, Abstract, p 162 (3486), (2002).	yes	
		MATSUMOTO et al., "NF- κ B Inhibitor Enhances the Anti-Cancer Effect of TNF- α Treatment and Ionizing Radiation in P.53 Wild Pancreatic Cancer", Proceedings of the Japanese Cancer Association, The 62 nd Annual Meeting, Abstract, p. 160 (2073-OA), (2003).	yes	
		HORIE et al., Basic Studies of the Molecular Target Therapy of ATL Using a Novel NF- κ B Inhibitor", Proceedings of the Japanese Cancer Association, The 62 nd Annual Meeting, Abstract, p. 153 (2039-OA), (2003).	yes	
		SUZUKI et al., "Inhibition of Macrophage Activation by the Novel NF- κ B Inhibitor, Dehydroxymethylepoxyquinomicin", The 3 rd International Symposium on Natural Drugs, Naples, Abstract (2003).		
		ARIGA et al., "Molecular Design and Biological Activities of a New NF- κ B Inhibitor, Dehydroxymethylepoxyquinomicin (DHMEQ)", Faculty of Science and Technology, Biology and Pathology, Keio University, Yokohama 223-0061, Japan, Abstract (2002).		
		UMEZAWA, "Molecular Design and Biological Activities of NF- κ B and Protein-Tyrosine Phosphatase Inhibitors", Department of Applied Chemistry, Keio University, Ewha Woman's University Annual Symposium (Gosari) (2002).		

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Sheet	3	of	3
		Attorney Docket Number	09707.0001



NON PATENT LITERATURE DOCUMENTS			
		HORIGUCHI et al., "A Novel NF-kB Activation Inhibitor Mediated Apoptosis as a New Therapeutic Approach in Hormone-Refractory Prostate Cancer", American Urological Association Annual Meeting, Abstract (2002).	
		MIYAJIMA et al., "Nuclear Factor-Kappa B Activation Inhibitor Prevents Renal Tissue Damage In Unilateral Ureteral Obstruction", American Urological Association Annual Meeting, Abstract (2002).	
		HORIGUCHI et al., "Anti-Tumor Effect of a Novel NF-kB Activation Inhibitor in Bladder Cancer Cells", American Urological Association Annual Meeting, Abstract (2003).	
		UMEZAWA, "Molecular Design and Biological Activities of a New NF-kB Inhibitor, Dehydroxymethylepoxyquinomicin", The 5 th International Symposium on Molecular Medicine, Crete, Greece, Abstract (2002).	
		NAMEKAWA et al., "Suppression of Human Breast Carcinomas in Mice by a Novel NF-kB Inhibitor DHMEQ", The 76 th Annual Meeting of the Japanese Biochemical Society, Abstract .	
		SUZUKI et al., "Inhibition of Ligand-Induced Macrophage Activation by an NF-kB Inhibitors, DHMEQ", The 76 th Annual Meeting of the Japanese Biochemical Society, Abstract	
		KUBOTAL et al., "Application of an NF-kB Inhibitor to the Therapy of SLE", The 67 th Annual Scientific Meeting of the American College of Rheumatology, Abstract (2003).	
		HORIGUCHI et al., "Suppression of Hormone-Refractory Prostate Cancer by a Novel NF-kB Inhibitor in Nude Mice", Proceedings of the American Association for Cancer Research 93 rd Annual Meeting, Abstract 2163.	
		ARIGA et al., "Inhibition of TNF-Alpha-Induced NF-Kappa B Functions by a Synthetic Epoxyquinomicin Analogue", Proceedings of the American Association for Cancer Research 92 nd Annual Meeting, Abstract 2111.	
		KIKUCHI et al., "A Novel NF-kB Activation Inhibitor-Mediated Apoptosis As a New Therapeutic Approach In Hormone-Refractory Prostate Cancer", The 47 th Annual Congress of the Japan Section of the International College of Surgeons, Abstract (2001).	

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.